

AMENDMENTS TO THE CLAIMS

In the claims, please amend claim 19, 22-23, and 27-28 as follows:

1-18. (canceled)

19. (currently amended) A method for delivering a polynucleotide to the cytoplasm of a cell comprising: a) condensing said polynucleotide with a polycation to form a binary complex; b) associating said binary complex with a negatively charged reversibly inhibited membrane active polymer to form a ternary complex wherein said reversibly inhibited membrane active polymer comprises a membrane active polyamine capable of causing liposome leakage to which a plurality of disubstituted maleic anhydride derivatives are reversibly linked via pH labile bonds and wherein linkage of the disubstituted maleic anhydride derivatives to the polymer inhibits liposome leakage activity of the membrane active polyamine and cleavage of the disubstituted maleic anhydride derivatives from the reversibly inhibited membrane active polymer restores liposome leakage activity of the membrane active polyamine; and, c) delivering said ternary complex to said cell wherein said ternary complex is endocytosed.

A method for delivering a polynucleotide to the cytoplasm of a cell comprising:

- a) forming a first amine-containing amphiphilic polyvinylether polymer;
- b) forming a second amine-containing amphiphilic polyvinylether polymer capable of causing liposome leakage;
- c) reversibly modifying the second amine-containing amphiphilic polyvinylether polymer via covalent linkage of a plurality of disubstituted maleic anhydride to amines on the polymer thereby forming a reversibly inhibited membrane active polymer, wherein:
 - i) the reversibly inhibited membrane active polymer is not capable of causing liposome leakage, and
 - ii) exposure of the reversibly inhibited membrane active polymer to acidic pH results in cleavage of the disubstituted maleic anhydride from the second amine-containing amphiphilic polyvinylether polymer; and,
- d) associating said polynucleotide with the first amine-containing amphiphilic polyvinylether polymer to form a binary complex;
- e) associating said binary complex with the reversibly inhibited membrane active polymer to form a ternary complex; and
- f) contacting the cell with the ternary complex resulting in delivery of the polynucleotide to the cell.

20-21. (canceled)

22. (currently amended) The method of claim 19 wherein said polycation first amine-containing amphiphilic polyvinylether polymer is crosslinked to said reversibly inhibited membrane active polymer via a pH-labile bond.

23. (currently amended) The method of claim 19 wherein said membrane active polyamine disrupts amine-containing amphiphilic polyvinylether polymers disrupt an endocytic membrane of the cell thereby providing delivery of said polynucleotide the cytoplasm of said cell.

24-26. (canceled)

27. (currently amended) The method of claim 19 wherein said disubstituted maleic anhydride derivatives are derived from reaction of said membrane active polymer with disubstituted maleic anhydrides selected from the group consisting of: carboxydimethylmaleic anhydride, carboxydimethylmaleic anhydride-thioester, and carboxydimethylmaleic anhydride-polyethylene glycol.

28. (currently amended) The method of claim 27 wherein said inhibitors disubstituted maleic anhydrides are cleaved from said polyamine second amine-containing amphiphilic polyvinylether polymer in an endosome.

29. (currently amended) The method of claim 19 wherein said membrane active polymer has amine-containing amphiphilic polyvinylether polymers each have a molecular weight greater than 10,000 Daltons.

30. (previously presented) The method of claim 22 wherein said ternary complex consists of a nanoparticle.

31. (previously presented) The method of claim 30 wherein said nanoparticle consists of a salt stable nanoparticle.

32. (currently amended) The method of claim 31 wherein ternary complex has a net negative charge.